

# Notice of Allowability

Application No.

10/671,164

Examiner

Khai M. Nguyen

Applicant(s)

VINING, SUZANNE MARY

Art Unit

2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/22/2006.
2. ☒ The allowed claim(s) is/are 1-17 and 20-28.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
Khai M. Nguyen - May 22, 2007  
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571-272-1809

**DETAILED ACTION**

***Response to Arguments***

2. Applicant's arguments, see pages 11-14, filed 8/22/2006, have been fully considered and are persuasive.

***Allowable Subject Matter***

3. Claims 1-17 and 20-28 are allowed. The following is an examiner's statement of reasons for allowance:

With respect to claims 1-11, the references of record neither anticipate nor render obvious the recited combination including among other things: the transition detectors that analyze consecutive data samples in order to identify transitions by comparing pairs of successive data samples and generating a transition signal during a bit time period at a predetermined logic level when a successive pair of data samples have a different data levels; and combining circuit that generates a serial decoded data stream by combining transition signals.

With respect to claims 12-16, the references of record neither anticipate nor render obvious the recited combination including, among other things: the sample component that obtains data samples of the received serial data stream at the N phases; and data recovery component that identifies transitions in the received serial data stream by comparing pairs of successive data samples and obtains a recovered serial data stream based solely on the identified transitions.

With respect to claims 17, 20, and 21, the references of record neither anticipate nor render obvious the recited combination including the steps of: analyzing consecutive data samples to identify transitions by comparing pairs of successive data samples; generating a first value on identifying one or more transitions; and generating a second value that is a complement of the first value on not identifying one or more transitions.

With respect to claims 22-23, the references of record neither anticipate nor render obvious the recited combination including, among other things: the first circuit that generates a serial decoded data stream that comprises values for time period(s) according to occurrence or non-occurrence of one or more transitions within respective time period(s); and NRZI decoder that decodes the decoded data stream into non-encoded data.

With respect to claim 24, the references of record neither anticipate nor render obvious the recited combination including, among other things: the first circuit that generates a serial decoded data stream that comprises values for time period(s) according to occurrence or non-occurrence of one or more transitions within respective time period(s); and NRZI encoder that encodes the decoded data stream into an NRZI encoded data stream.

With respect to claim 25, the references of record neither anticipate nor render obvious the recited combination including, among other things: the data recovery component that identifies transitions in the received serial data stream and obtains a recovered serial data stream based solely on the identified transitions; and clock

recovery component that recovers one or more clocks associated with the received serial data stream, wherein the clock recovery component is operable to identify a sample phase and a clock phase per bit of data.

With respect to claim 26, the references of record neither anticipate nor render obvious the recited combination including, among other things: the phase generator that produces N phases of a clock signal that have an associated frequency of about the frequency of the received serial data stream, wherein the N phases are successively offset by  $(1/N)$  of a time period and are substantially evenly spaced; and the data recovery component that identifies transitions in the received serial data stream and obtains a recovered serial data stream solely on the identified transitions.

With respect to claim 27, the references of record neither anticipate nor render obvious the recited combination including, among other things: the phase generator that produces N phases of a clock signal that have an associated frequency of about the frequency of the received serial data stream, wherein the N phases are successively offset by  $(1/N)$  of a time period and N is equal to 8 and the time period is equal to about 2.0833ns; and the data recovery component that identifies transitions in the received serial data stream and obtains a recovered serial data stream solely on the identified transitions.

With respect to claim 28, the references of record also fail to teach or suggest the recited combination including the steps of: obtaining a number of data samples of a received serial data stream according to a number of phase clocks, wherein the phase clocks are successively offset so as to provide evenly spaced phases throughout a time

period; and generating a second value that is a complement of the first value on not identifying one or more transitions.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Contact Information***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khai M. Nguyen whose telephone number is 571-272-1809. The examiner can normally be reached on 9:00 - 5:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford (Rex) Barnie can be reached on 571-272-7492. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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